AF
FFW

PTO/SB/21 (05-03)
Approved for use through 04/30/2003. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

		Application Number	09/591,584
		Filing Date	06/09/2000
		First Named Inventor	Peter T. Dietz
		Art Unit	1771
		Examiner Name	Hai Vo
Total Number of Pages in This Submission	12	Attorney Docket Number	55434US002

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment/Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
  - ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
- ☐ After Allowance communication to Group
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☑ Appeal Communication to Group **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☑ Other Enclosure(s) (please Identify below):
  Return Receipt Postcard

Remarks

Appeal Communications submitted herewith include Correction To Applicant's Appeal Brief; and Reply Brief Pursuant to 37 CFR 1.193(b)(1)

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Robert L. Showalter, Reg. No. 33,579
Signature	
Date	8/11/04

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Robert L. Showalter, Reg. No. 33,579		
Signature		Date	8/11/04

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Peter T. Dietz
Serial No.	: 09/591,584
Filed	: June 9, 2000
Title	: Glazing Element and Laminate for Use in the Same
Attorney Docket	: 55434US002
Examiner	: H. Vo
Art Unit	: 1771

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Appeal Brief – Patents, Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450 on August 11, 2004.

Attorney Reg. No. 33,579

Mail Stop Appeal Brief--Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Correction to Applicant's Appeal Brief

In the paragraph bridging pages 6 and 7 of Applicant's Appeal Brief, set out below, three errors were noted, which are corrected below:

> Murphy, in contrast, discloses a film having "a marked reduction in transmission of ultraviolet rays, infrared light and reduction in glare while retaining good transparency to visible light," see column 5, lines 25-28. Hence, the Hutchison film functions to reflect visible light in addition to ultraviolet and near infra-red light while the Murphy film functions to transmit visible light while reducing ultraviolet rays, infrared light and glare. Because the two films have such diametrically opposed functions, it is submitted that one skilled in the art would not have been motivated to combine their ~~teaches~~ teachings as proposed in the Office Action. Nor is there any teaching or suggestion to one skilled in the art to secure the Hutchison film to a window glass in order to allow the very small amount of ~~infrared~~ ultraviolet light passing through the Hutchison film to also pass through the window glass while reflecting the visible light away from the window glass. In point of fact, Murphy teaches away from such a combination as the Murphy film functions in an opposite manner, namely, to prevent ~~infrared~~ ultraviolet light from passing through the window glass while allowing visible light to pass

therethrough. It is very clear that the only teaching for providing a laminate/window glass combination, as recited in claims 1 and 9, comes from the applicant's own disclosure, which cannot be used against him. Accordingly, the Board is respectfully requested to reverse the Examiner's final rejection of claims 1-5, 7-9, 11, 13, 17-21, 31-33, 38 and 39.

It is respectfully requested that the Board take into consideration the revisions noted above when reviewing Applicant's Appeal Brief.

Respectfully submitted,
STEVENS & SHOWALTER, L.L.P.

By _____
Robert L. Showalter
Reg. No. 33,579

7019 Corporate Way
Dayton, OH 45459-4238
Telephone: 937-438-6848
Fax: 937-438-2124
Email: Showalter@speakeasy.net

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant	: Peter T. Dietz
Serial No.	: 09/591,584
Filed	: June 9, 2000
Title	: Glazing Element and Laminate for Use in the Same
Attorney Docket	: 55434US002
Examiner	: H. Vo
Art Unit	: 1771

CERTIFICATE OF MAILING
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Appeal Brief – Patents, Commissioner for Patents, PO Box 1450, Alexandria VA 22313-1450 on August 11, 2004.

Attorney Reg. No. 33,579

Mail Stop Appeal Brief--Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REPLY BRIEF PURSUANT TO 37 CFR 1.193(b)(1)

This Reply Brief is being filed within 2 months from the June 17, 2004 mailing date of the Examiner's Answer. It is respectfully requested that the Board of Appeals give consideration to the comments set out below.

Rebuttal to New Assertions found in the "Grounds of Rejection"

Set out in the Examiner's Answer

I. The Examiner's Answer states on page 3:

> Hutchison discloses a reflective film mounted on a substrate having a layer construction as follows, a protective fluorocarbon film, a first layer of pressure sensitive adhesive, a silver layer, a biaxially oriented polyethylene terephthalate (PET), a second layer of pressure sensitive adhesive, a biaxially oriented PET, a third layer of pressure sensitive adhesive and a glass substrate (example 5 and figures 3 and 6).

Example 5 in the Hutchison patent provides a 2 mil thick flexible fluorocarbon film (first layer) which may be co-extruded and biaxially oriented, see column 10, lines 10-15. A first layer of pressure sensitive adhesive is applied to the film. A silver layer is vapor-deposited onto

the first adhesive layer. A second layer of pressure sensitive adhesive is applied to the silver layer. A second layer (1 mil thick) of fluorocarbon film is applied to the second layer of pressure sensitive adhesive. Example 5 does not provide a protective fluorocarbon film in combination with two biaxially oriented PET layers, as set out on page 3 of the Examiner's Answer. It is noted that Example 6 in the Hutchison patent does provide two fluorocarbon film layers in combination with a co-extruded biaxially oriented flexible polyester film layer, see column 7, lines 50-59 and column 11, lines 8-15. However, Example 6 does not provide a protective fluorocarbon film in combination with two biaxially oriented PET films. It is further noted that nowhere within the four corners of the Hutchison patent is "a glass substrate" disclosed, taught or suggested.

II. The Examiner's Answer states on pages 3 and 4:

> Hutchison is using the same acrylic pressure sensitive adhesive as Appellant (column 7, line 67), the modulus strength of the adhesive would be inherently present.

Applicant's Appeal Brief addresses this issue on pages 7 and 8 with regard to claims 8 and 11 as follows:

> Hutchison generally teaches providing an acrylic pressure sensitive adhesive to secure laminate layers together. However, nowhere does Hutchison disclose, teach or suggest that this adhesive possesses a shear storage modulus falling within the limitations recited in claims 8 and 11. It is believed that not all acrylic pressure sensitive adhesives will inherently possess a shear storage modulus meeting the limitations set out in claims 8 and 11. If the shear storage modulus is too great, then a laminate may tear thereby failing the Thirty Foot Ball Drop test. Conversely, if the storage modulus is too low, the boiling water test may not be passed.

Accordingly, it is submitted that the general teaching in Hutchison of providing an acrylic pressure sensitive adhesive does not disclose, teach or suggest the subject matter recited in claims 8 and 11.

III. The Examiner's Answer states on pages 4 and 5:

> Hutchison does not specifically disclose the reflective film being capable of passing one or more tests as recited in the claims. However, it appears that the reflective film of Hutchison as modified by Murphy is structurally the same, and made of the same materials as the presently claimed laminate. *** The reflective film is attached to the window glass by the acrylic pressure sensitive adhesive as disclosed by the present invention. *** Therefore, it is the examiner's position that the reflective film would be substantially inherently capable of passing one or more of the tests as recited in the claims.

Applicant's Appeal Brief addresses this issue on page 7 with regard to claims 7, 13 and 17-21 as follows:

> Hutchison generally teaches providing an acrylic pressure sensitive adhesive to secure laminate layers together, see, for example, column 7, lines 66-68 of the '540 patent. However, nowhere does Hutchison disclose, teach or suggest that one of his laminates is capable of passing one or more of the following ANSI Z-26 tests: 5.04 – Two Hour Boiling Water; and 5.13 – Thirty Foot Ball Drop. It is believed that use of any acrylic pressure sensitive adhesive to bond together film layers to form a laminate will not inherently result in the laminate passing these tests. For example, if an acrylic pressure sensitive adhesive creates a bond that is too strong, a laminate may tear thereby failing the Thirty Foot Ball Drop test. Conversely, if the adhesive bond is too weak, the boiling water test will not be passed.

Accordingly, the subject matter of claims 7, 13 and 17-21 is not disclosed, taught or suggested by the general teaching in Hutchison of providing an acrylic pressure sensitive adhesive when taken in combination with the remaining portions of the Hutchison patent.

Rebuttal to Comments Set Out in the "Response to Argument" Section of the Examiner's Answer

I. The Examiner's Answer states on page 7:

> Appellant argues that there is no motivation or suggestion to combine the teachings of Hutchison and Murphy in the manner espoused in the final Office Action and Advisory Action. The examiner disagrees. Hutchison teaches a reflective film for use in a solar energy concentrator. Murphy teaches a solar control film having a layer construction similar to the reflective film as disclosed in the Hutchison reference. Murphy also teaches the solar control film for application to window glass to reduce heat, glare of solar radiation. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the reflective film in combination with window glass motivated by the desire to reduce heat, glare of solar radiation. It is believed that the motivation to combine the two cited references is strong and sufficient.

Applicant submits that the espoused motivation to combine the Hutchison and Murphy references is premised solely on hindsight reconstruction of the disclosed and claimed invention. Hutchison teaches providing a reflective film for use in a solar energy concentrator 200, see column 7, lines 9 and 10, and "other types of lighting reflectors ***," see column 7, lines 41-45. Hutchison teaches that "when the reflector [element 210 of the concentrator 200] is oriented toward the sun, solar radiation impinging on any part of the surface of the flexible film 100 is reflected to converge at the line of focus of that parabolic surface," see column 7, lines 24-27. Hutchison further teaches that "to be efficient[,] a reflective film must be highly specularly reflective to visible, ultraviolet, and/or near infra-red light between about 300-2,500

nanometers," see column 1, lines 19-22 of the '540 patent. It is noted that Hutchison teaches in column 2, lines 15-18, "a thin layer of silver *** is characterized by the presence of a spectral 'window' through which ultraviolet light in the 300-400 nanometer region readily passes." It is also noted that no mention is made in the '540 patent that a thin layer of silver is characterized by the presence of a spectral window through which visible light passes. Murphy, in contrast, discloses a film having "a marked reduction in transmission of ultraviolet rays, infrared light and reduction in glare while retaining good transparency to visible light," see column 5, lines 25-28.

Hence, the Hutchison film functions **to reflect visible light** in addition to ultraviolet (a portion of ultraviolet energy passes as noted above) and near infra-red light while the Murphy film functions **to transmit visible light** while reducing ultraviolet rays, infrared light and glare. Because the two films have such diametrically opposed functions, it is submitted that one skilled in the art would not have been motivated to combine their teachings as proposed in the Examiner's Answer. Nor is there any teaching or suggestion to one skilled in the art to secure the Hutchison film to a window glass in order to reflect visible light away from the window glass while allowing the very small amount of ultraviolet light passing through the Hutchison film to also pass through the window glass. In point of fact, Murphy teaches away from such a combination as the Murphy film functions in an opposite manner, namely, to allow visible light to pass therethrough while preventing ultraviolet light from passing through the window glass.

II. The Examiner's Answer further states on pages 7 and 8:

> Appellant further argues that the reflective film of Hutchison is highly reflective to visible, ultraviolet, and/or near infrared light whereas the solar control film of Murphy functions to transmit visible light while reducing ultraviolet and near infrared light and glare. Since the two films have such diametrically opposed functions, one skilled on [sic: in] the art would not be motivated to combine their teachings as proposed in the Office Action. The arguments are not found persuasive for patentability. In the first place, it is believed that the presence of the thin silver layer in the Hutchison film does

not necessarily cause the film [to be] completely non-transmissive to visible light but rather to reduce the visible light transmittance of the film instead. Since the claims are unspecific about the percentage of visible light transmission, Hutchison's film appears to transmit visible light. Secondly, the films of the Hutchison and Murphy inventions are both reflective to ultraviolet and infrared light. Therefore, it is not understood that the two films have opposed functions as argued by Appellant.

As noted above, Hutchison teaches in column 2, lines 15-18, "a thin layer of silver *** is characterized by the presence of a spectral 'window' through which ultraviolet light in the 300-400 nanometer region readily passes." Hutchison further teaches that "to be efficient[,] a reflective film must be highly specularly reflective to visible, ultraviolet, and/or near infra-red light between about 300-2,500 nanometers," see column 1, lines 19-22 of the '540 patent. In contrast, Murphy discloses a film having "a marked reduction in transmission of ultraviolet rays, infrared light and reduction in glare while retaining good transparency to visible light," see column 5, lines 25-28. In response to the Examiner's statement that "it is not understood that the two films have opposed functions," applicant submits that the two opposed functions are as follows: the Hutchison film reflects visible light and allows ultraviolet light in the 300-400 nanometer region to readily pass while the Murphy film allows visible light to readily pass while reducing the transmission of ultraviolet light.

III. The Examiner's Answer states on pages 8 and 9:

Appellant states that the use of any acrylic pressure sensitive adhesive to bond together film layers to form a laminate will not necessarily result in the laminate passing the tests. The examiner disagrees. The examiner never contends that the use of the same acrylic pressure sensitive adhesive to bond together film layers inherently results in the laminate passing the tests. On the contrary, the basis of the inherency flows from the following reasons. The reflective film of Hutchison as modified by Murphy is

> structurally the same, and made of the same materials as the presently claimed laminate. The reflective film meets all the structural limitations, having the thickness within the claimed range. The reflective film is attached to the window glass by the acrylic pressure sensitive adhesive as disclosed by the present invention. *** The polyester films are bonded to each other by the pressure sensitive adhesive layer. The reflective film is light transmissive. Therefore, it is the examiner's position that the reflective film would be substantially inherently capable of passing one or more of the tests as recited in the claims.

Applicant notes that Hutchison generally teaches providing an acrylic pressure sensitive adhesive to secure laminate layers together, see, for example, column 7, lines 66-68 of the '540 patent. However, it is submitted that this non-specific teaching in combination with the remaining portions of the Hutchison patent are not sufficient to disclose to one skilled in the art a laminate capable of passing one or more of the following ANSI Z-26 tests: 5.04 – Two Hour Boiling Water; and 5.13 – Thirty Foot Ball Drop. It is believed that use of any acrylic pressure sensitive adhesive to bond together film layers to form a laminate will not inherently result in the laminate passing these tests. For example, if an acrylic pressure sensitive adhesive creates a bond that is too strong, a laminate may tear thereby failing the Thirty Foot Ball Drop test. Conversely, if the adhesive bond is too weak, the boiling water test will not be passed. Murphy also fails to disclose a laminate having polymeric layers bonded together via a pressure sensitive adhesive capable of meeting the tests set out in claims 7, 13 and 17-21.

IV. The Examiner's Answer states on page 9:

> Appellant argues that Hutchison does not disclose, teach or suggest that the adhesive possesses a shear storage modulus within the claimed range. Nothing in the claims is specific about the composition of the adhesive to provide the structural distinction between the adhesive of [the] presently claimed invention and the Hutchison reference.

Hutchison is using the same acrylic pressure sensitive adhesive as Appellant (column 7, line 67), the modulus strength of the adhesive would be inherently present.

It is submitted that the Examiner is ignoring the limitations recited in claims 8 and 11. Applicant reiterates his belief that not all acrylic pressure sensitive adhesives will inherently possess a shear storage modulus meeting the limitations set out in claims 8 and 11. If the shear storage modulus is too great, then a laminate may tear thereby failing the Thirty Foot Ball Drop test. Conversely, if the storage modulus is too low, the boiling water test may not be passed. Murphy also fails to disclose a laminate including a pressure sensitive adhesive having a shear storage modulus meeting the limitations set out in claims 8 and 11.

V. The Examiner's Answer states on page 11 and 12:

Appellant argues that Yang does not disclose a laminate comprising a first polymeric material lamina bonded to at least one additional polymeric material lamina wherein the laminate and a window glass have a percent haze less than or equal to about 2%. As a secondary reference, Yang does not need to disclose the laminate comprising a first lamina and second lamina as presently claimed since these features are already taught in the Hutchison reference. Additionally, Yang does teach the adhesive coated film having a percent haze less than 2% (table 1).

Percent haze varies with film thickness and number of film layers. It is noted that a single layer of pressure sensitive adhesive is taught by Yang et al. for bonding a film to a glass slide, see column 7, lines 54-67. However, nowhere does Hutchison, Murphy and Yang et al., whether taken singly or in combination, disclose a laminate comprising a first polymeric material lamina bonded to at least one additional polymeric material lamina, wherein the laminate and a window glass have a percent haze less than or equal to about 2.0%.

CONCLUSION

It is submitted that claims 1-11, 13-15, 17-22, 31-33, 35, 38 and 39 define patentably over the applied prior art. Accordingly, it is respectfully requested that the Board reverse the Examiner's final rejection of claims 1-11, 13-15, 17-22, 31-33, 35, 38 and 39.

Respectfully submitted,

STEVENS & SHOWALTER, L.L.P.

By _____

Robert L. Showalter
Reg. No. 33,579

7019 Corporate Way
Dayton, OH 45459-4238
Telephone: 937-438-6848
Fax: 937-438-2124
Email: Showalter@speakeasy.net